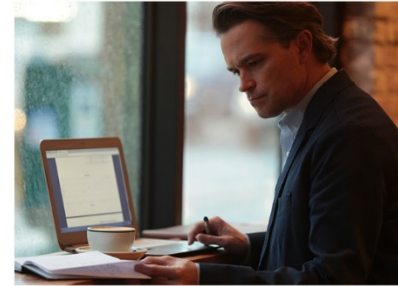


Rocky Mountain Power's 2020 Wildland Fire Protection Plan

Docket No. 20-035-28
Technical Conference
July 13, 2020



Process Recap

- Utah's **Wildland Fire Planning and Cost Recovery Act** was passed in March 2020
- Rocky Mountain Power filed its **Wildland Fire Protection Plan** on June 1, 2020
- The Plan describes Rocky Mountain Power's mitigation programs which are designed to reduce the risk of a utility-related wildfire

Plan Roadmap

- Risk Analysis
- Operational Practices
- Inspection and Correction
- Vegetation Management
- Environmental
- Construction Standards
- System Hardening
- New Construction
- Situational Awareness
- Public Safety Power Shutoff
- Emergency Management and Response
- Performance Metrics and Monitoring

Risk Analysis – Study Area

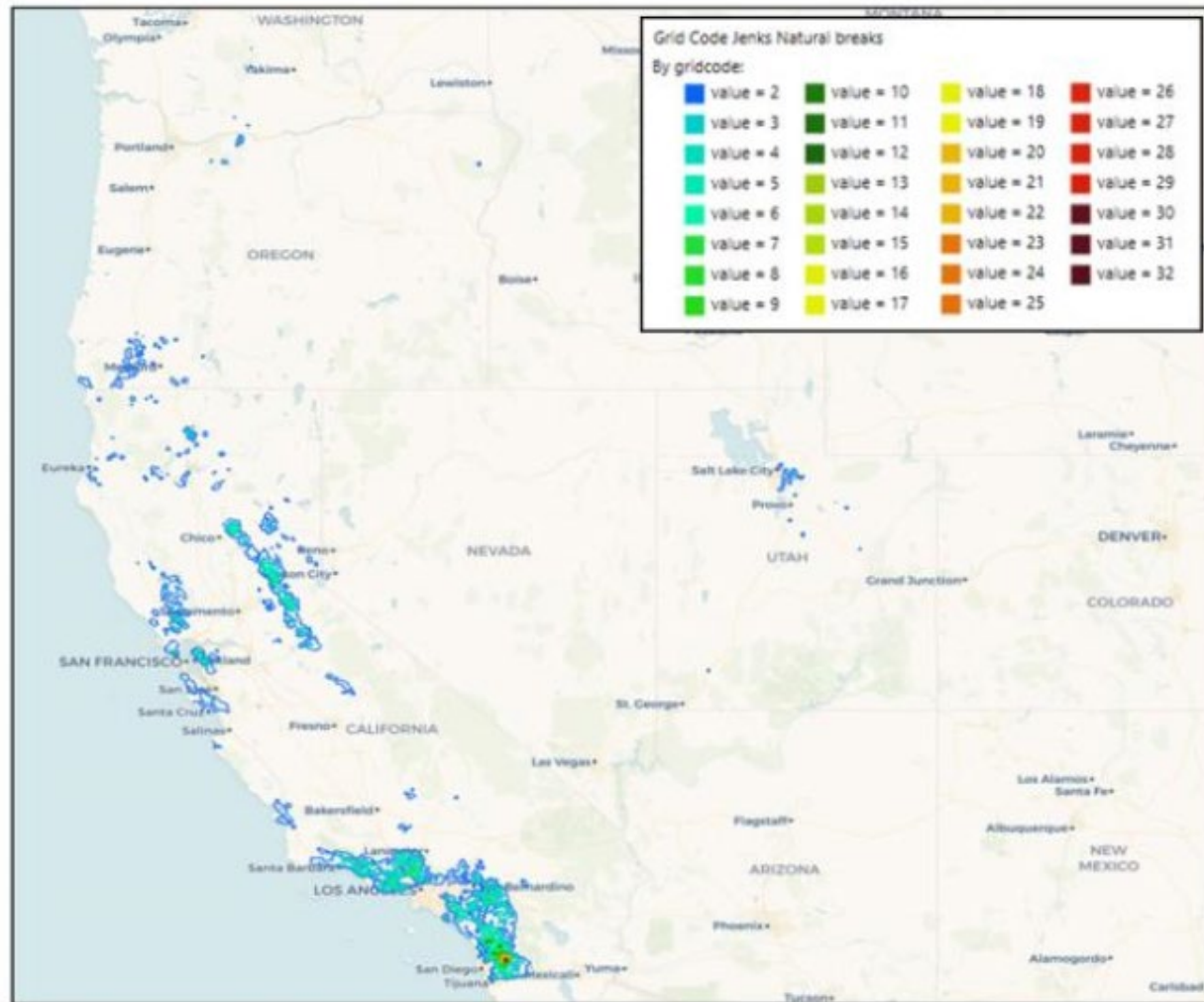
Topography (elevation, slope, aspect) segmented into 2-km-square cells:



Figure 2. Study Area for Fire Risk Mapping Project

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Risk Analysis – Modeling



Data and Processes

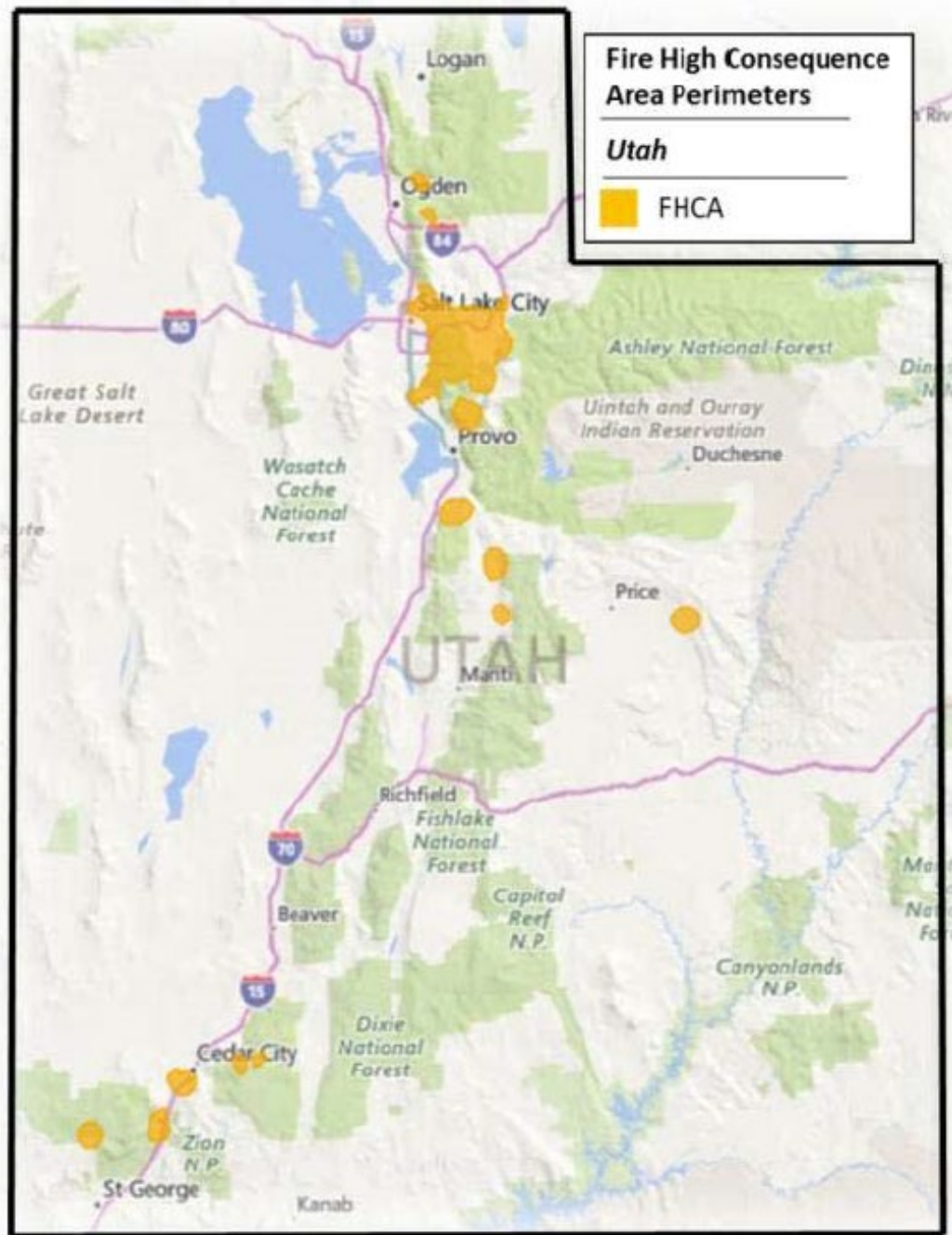
1. Topography
2. Fuel data
3. Weather modeling
4. Historical fire weather days
5. Estimated live fuel moisture
6. Ignition modeling
7. Fire spread modeling, including impact to populations

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Figure 3. Grid Code of Jenks Natural Breaks

Risk Analysis – FHCA

Geographic areas of elevated wildfire risk are called the Fire High Consequence Area, abbreviated as FHCA.



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Figure 4. Utah Statewide FHCA Perimeters

Risk Analysis – Understanding the Utility Specific Risk

- Historical Outage Study
- Main conclusion: two top categories are Equipment Failure and Contact from Object

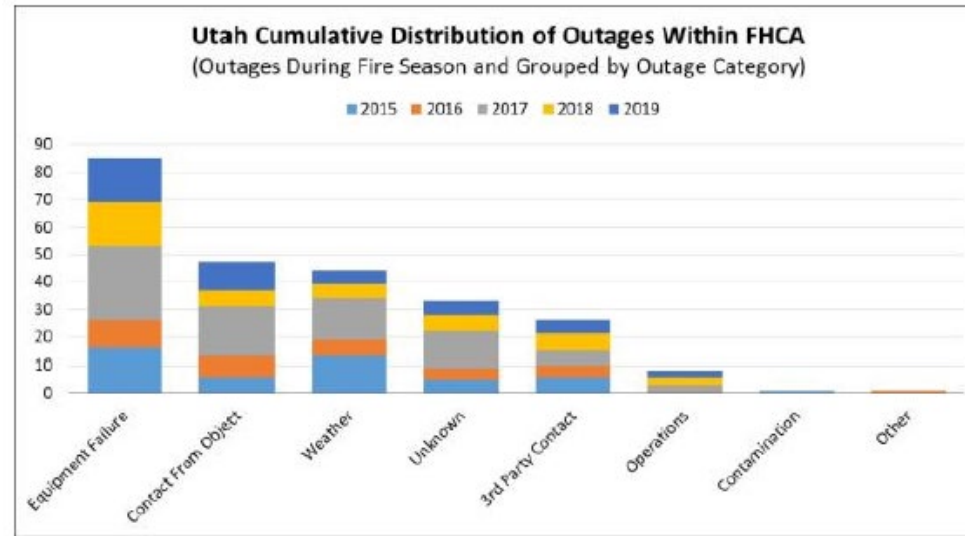


Figure 19. Cumulative Distribution of Outages Within FHCA and During Fire Season by Outage Category

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- Mitigation programs are designed to reduce number of FHCA outages due to equipment failure and contact from object

Operational Practices

SYSTEM OPERATIONS

- Disabling Auto-Reclosers
- No-Test Policy

FIELD OPERATIONS

- Work Restrictions – local personnel encouraged to consider fire conditions
- Worksite Preparation – clear vegetation prior to work
- Additional Labor Resources – especially to allow for additional patrols
- Basic Personal Suppression Equipment – for a small ignition while working
- Mobile Generators – to assist with emergency response
- Water Truck Resources – to assist with worksite preparation

Inspection and Correction

FHCA INSPECTION FREQUENCY

- OH Distribution:
 - Visual: every year (up from every other year)
 - Detail: five year cycle (up from twenty year cycle)
- OH Local Transmission
 - Visual: every year (up from every other year)
 - Detail: five year cycle (up from ten year cycle)

FHCA CONDITION CORRECTION

- Priority A and Fire Risk corrected on 60 day average (up from 120 day average)
- Priority B and Fire Risk corrected within 12 months (up from not specified)

“Priority A” denotes a condition with a risk of high potential impact to safety or reliability

“Priority B “ denotes a condition with a low to moderate risk to safety, reliability or worker safety

“Fire Risk” denotes a condition code reflecting an appreciable risk of fire ignition

Vegetation Management

- Annual Vegetation Inspection
 - Check that clearances will hold through cycle
 - Level 1 assessment performed by a certified arborist to identify high risk trees, which are dead, dying, diseased, deformed, or unstable trees that have a high probability of falling and contacting a substation, distribution or transmission conductors, structure, guys or other Rocky Mountain Power electric facility.
- Extended Clearance Specifications
 - Designed so that vegetation will likely never come within 4 feet of line
- Pole Clearing
 - Clearing 10 foot radius cylinder around equipment poles

Wildlife Protection Plan

- Modeled after successful Avian Protection Plan
- Designed to reduce wildlife related faults
- Incident Tracking
- Reactive – Retrofits
- Proactive
 - Nest Management
 - Substations
 - Lines and Line Elements

Construction Standards

- **FHCA Exempt** standards identify equipment that has been designed to mitigate the risk of fires in high fire-threat areas. See [Figure 24](#).
- **FHCA Non-Exempt** standards have been identified as not mitigating the risk of fires in FHCA. In other words, FHCA non-exempt equipment has a greater likelihood of emitting sparks. FHCA-non-exempt standards are marked at the top of the first page with the symbol shown in [Figure 25](#).



Figure 24. Symbol for “FHCA Exempt”



Figure 25. Symbol for “FHCA Non-Exempt”

System Hardening

- FHCA Line Rebuild Program
 - Emphasis on covered conductor and benefits in reducing potential for contact faults
- Pole Replacement Program
 - Priority primarily based on pole age and inspections of strength
- Fireproof Mesh Wrapping
 - Defensive in nature to protect the pole
- Relays for Advanced System Protection Program
 - Microprocessor relays to replace slower electro-mechanical relays
- Non-Expulsion Fuse Installation Program
 - Program to replace equipment which has potential to emit sparks



Non-Expulsion Fuses (ELF)



New Construction

- Right-of-Way – Route Selection
 - Emphasis on route selection that does not elevate wildfire risk
- Right-of-Way – Pre-Construction Clearing
 - Emphasis on eliminating vegetation risks before construction
- Facility Design – FHCA Exempt Design Standards
 - Required in the FHCA / Encouraged in other wildland areas
- Facility Design – Span Width
 - Urban ruling span required in the FHCA / Encouraged in other wildland areas
- Facility Design – Underground Construction
 - Sometimes required depending on specific circumstances

Situational Awareness

- Weather Consultants
 - Provide daily weather forecasts
- Weather Stations
 - 11 stations installed in 2019, and 25 more planned
- High-Definition Cameras
 - Plan to install 14 wildfire cameras, used for spotting and assisting suppression efforts
- Community Engagement
 - Rocky Mountain Power supports defensible space initiatives

PSPS Areas

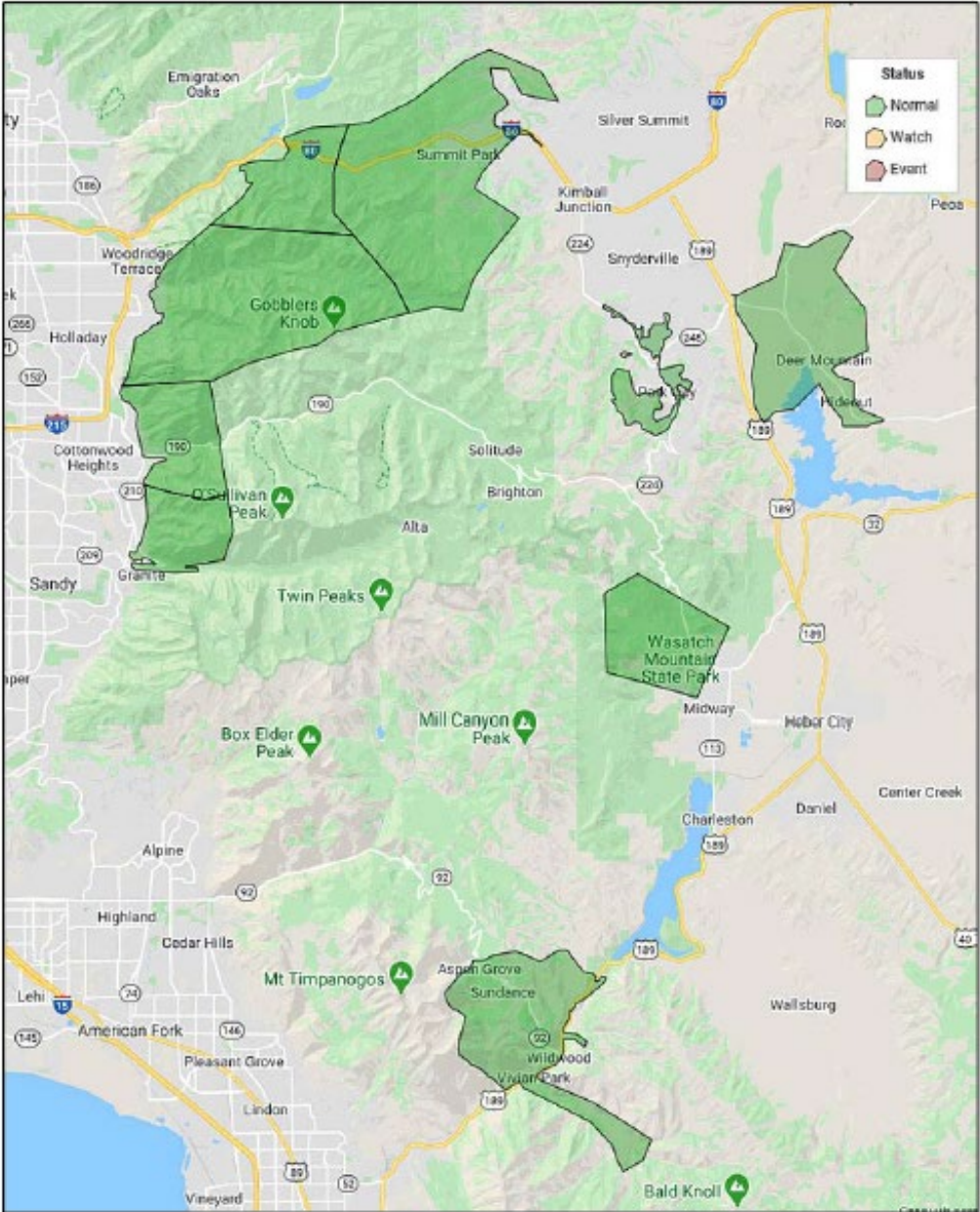


Figure 26. Map of Public Safety Power Shutoff Area in Northern Utah

PSPS will only be implemented in geographic areas of the highest wildfire risk.

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PSPS Areas

“PSPS will only be implemented in geographic areas of the highest wildfire risk.” (Plan at 67.)

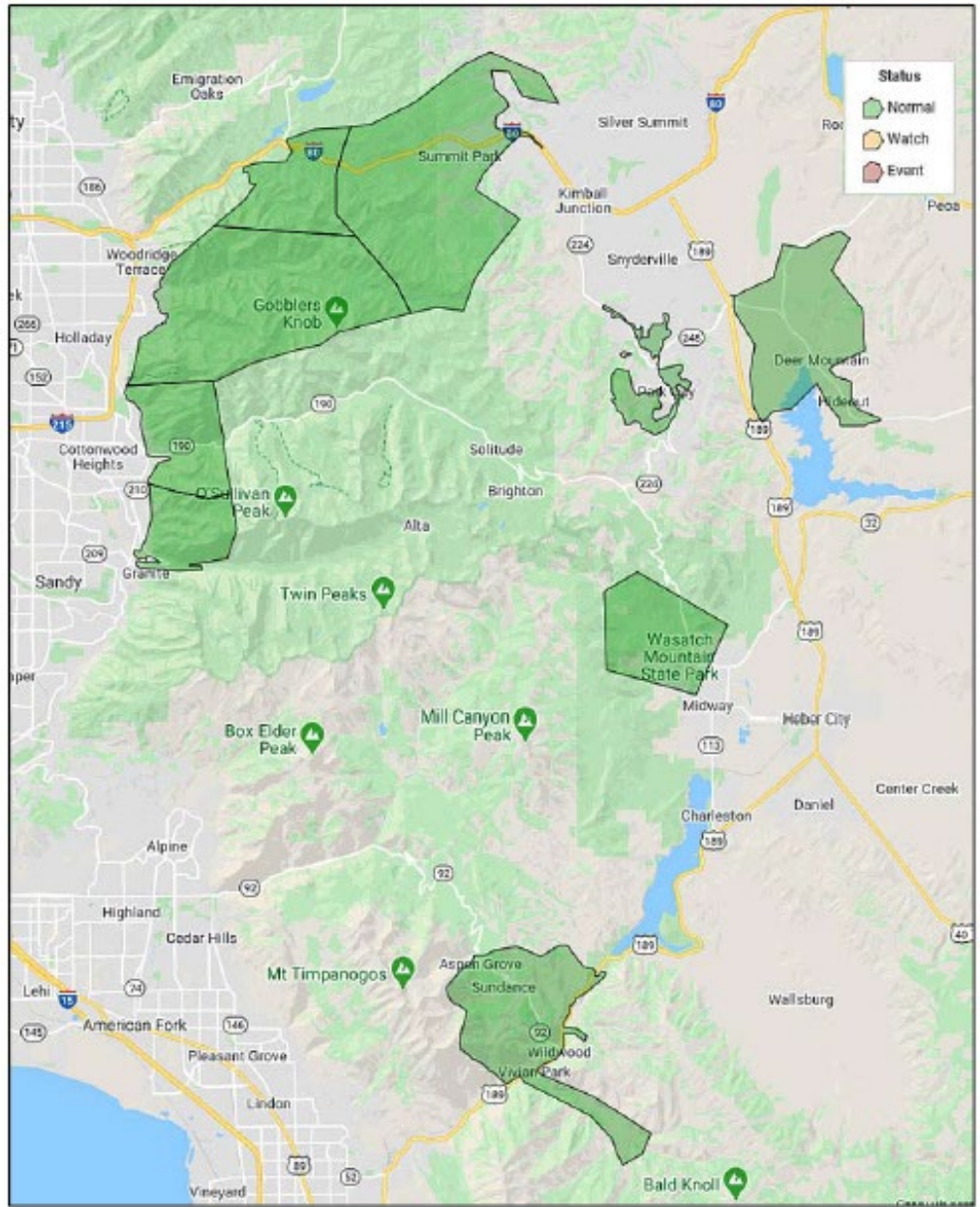


Figure 26. Map of Public Safety Power Shutoff Area in Northern Utah

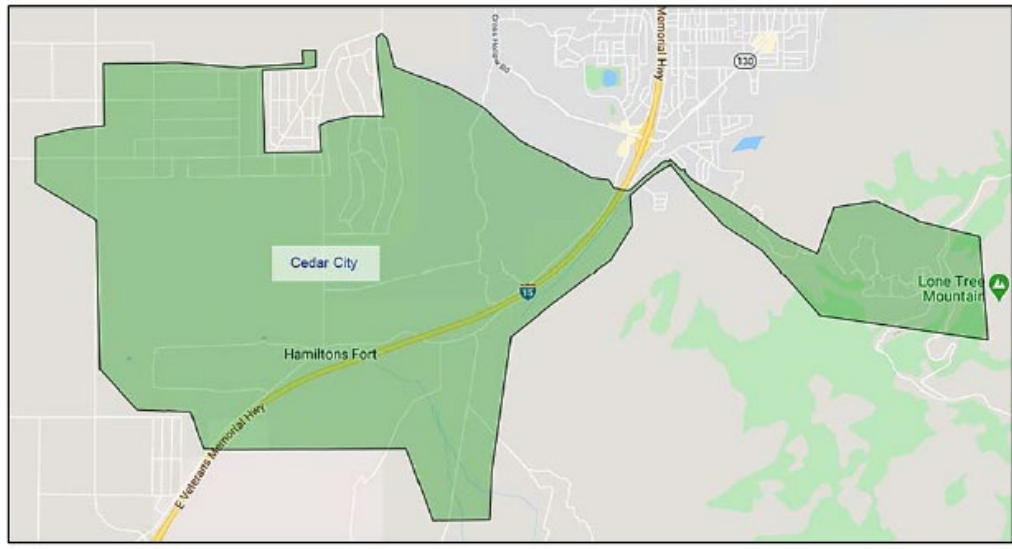
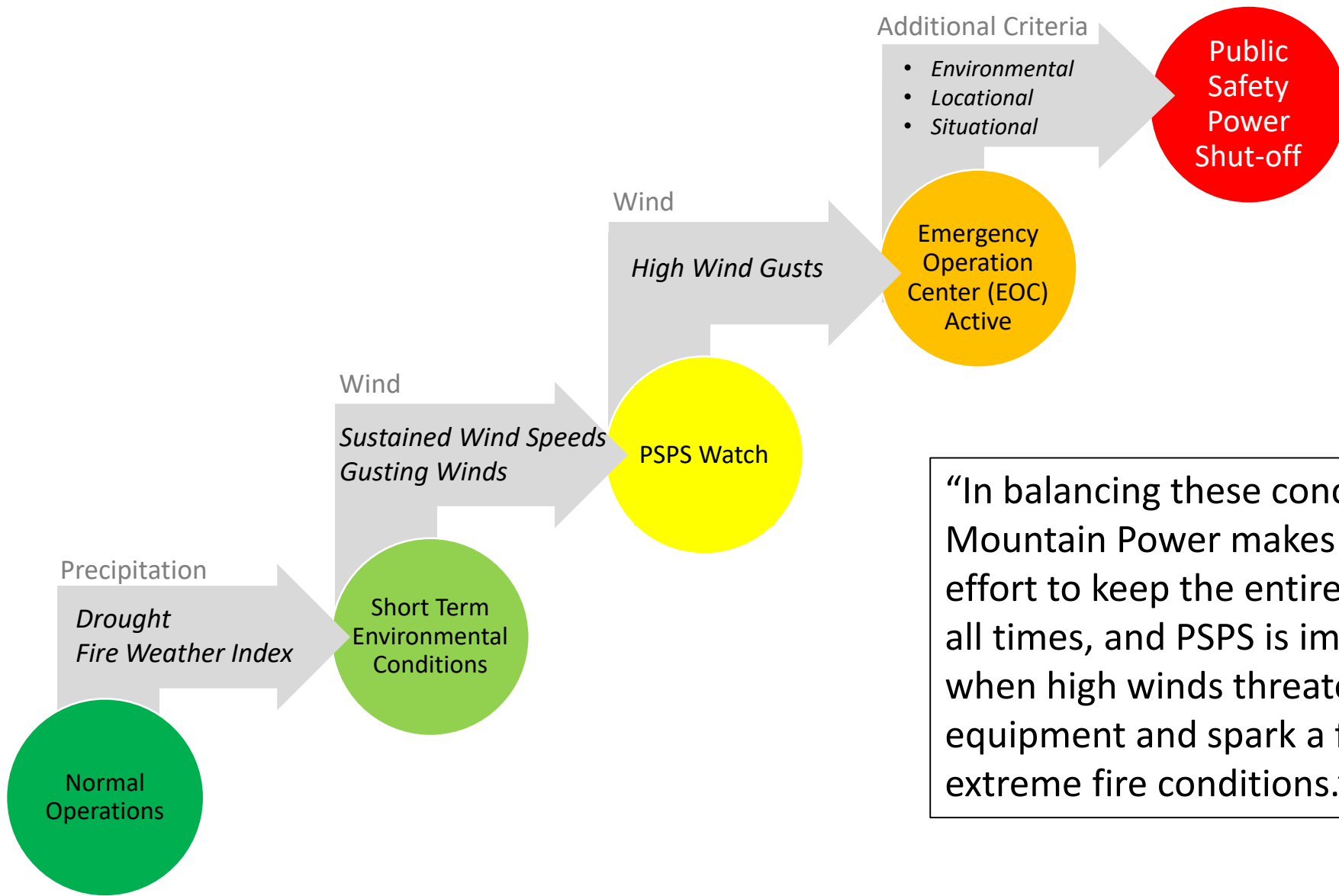


Figure 36. Map of Cedar City Public Safety Power Shutoff Area

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PSPS



“In balancing these concerns, Rocky Mountain Power makes extraordinary effort to keep the entire grid energized at all times, and PSPS is implemented only when high winds threaten to damage equipment and spark a fire during the most extreme fire conditions.” (Plan at 66.)

Emergency Operations Center

The purpose of the EOC is to

- Gather and process pertinent information
- Monitor conditions
- Organize resources
- Direct communications
- Make and execute strategic decisions

EOC council consists of an incident commander and advisors that could include

- Emergency management and systems operations
- Communications and public relations specialists
- Engineering advisors
- Customer service representatives
- Weather specialists
- Circuit chiefs
- Field operations area managers
- Technical advisors
- Other subject matter experts as needed



Circuit crew members working in FHCA to observe, report, and mitigate wildfire risk



Communication

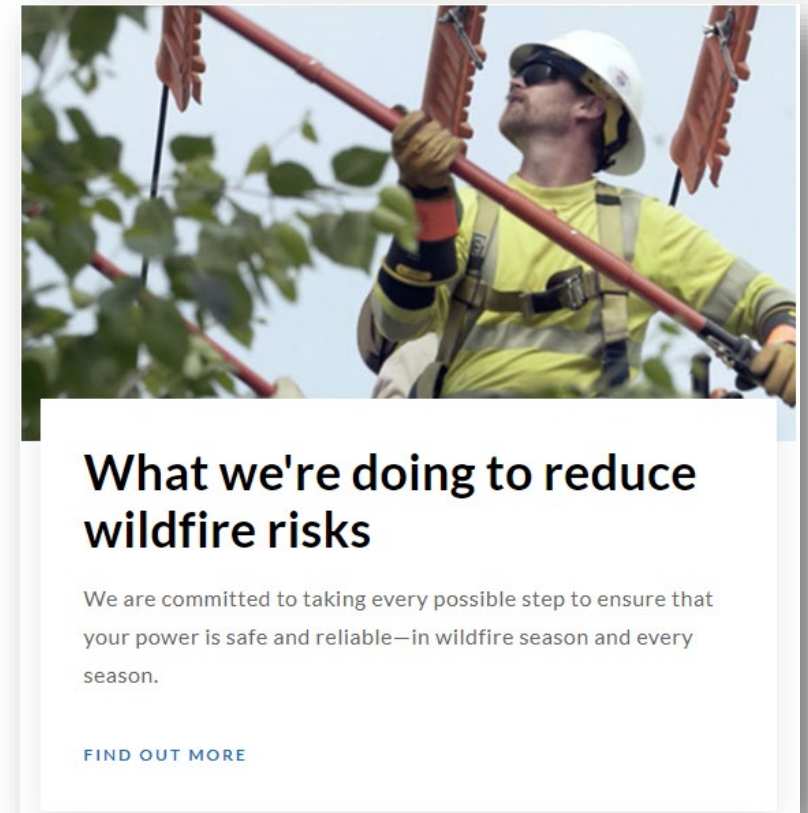


Emergency Management and Response

- **Emergency Response / Service Restoration**
 - Pre-incident preparedness enhanced by situational awareness
 - Response to incidents focused on power restoration efforts
 - Rocky Mountain Power participates in mutual assistance with other utilities
- **Community Outreach / External Collaboration**
 - Regional Business Managers with local government and community organizations
 - District Operations Managers with local first responders
 - Emergency Managers with federal and state agencies

Customer Communication Wildfire Mitigation and Safety

- ✓ Advertising
 - Print
 - Radio
 - Digital
 - Social
- ✓ Media outreach
- ✓ Bill Insert
- ✓ Webinar
- ✓ Informational sheets
- ✓ Resource center on website



Performance Metrics

The Vice President of Transmission & Distribution Operations is ultimately responsible for all wildfire mitigation programs, and the following are responsible for specific programs

Table 15. Rocky Mountain Power Wildfire Mitigation Plan Roles and Responsibilities

Plan Element	Responsible Role	Responsibility
Risk Mapping	Director of Asset Management	Annually evaluate new data to determine whether any modification to the risk-based mapping would be warranted.
Risk Assessment	Director of Asset Management	Annually evaluate risks and integrate new data with risk-based decision-making approach.
Inspect/Correct Programs	Director of Asset Management	Execute inspection and correction program consistent with revised inspection frequencies and correction timeframes.
System Operations	VP of System Operations	Implement system operations procedures during wildfire season and conduct annual review of performance.
Field Operations	Wires Director(s)	Implement fire season policies and arrange for the use of equipment contemplated in those policies.
Environmental	Manager of T&D Environmental	Manage Wildlife Protection Plan and evaluate effectiveness of reducing animal contacts.
System Hardening	Director of Asset Management	Administer proposed system hardening programs and evaluate the utility of adding new projects or reprioritizing planned projects.
Vegetation Management	Director of Vegetation Management	Implement annual vegetation inspections, increased minimum clearances, and pole clearing program
Situational Awareness	Director of Asset Management	Manage installation of weather stations and high-definition cameras.
Public Safety Power Shutoff	Director of Asset Management	Responsible for execution of the plan, including identification, reporting and communication

Conclusion

- Additional questions?
- Rocky Mountain Power's website has a Wildfire Safety page with information for customers about the company's wildfire mitigation programs, available at <https://www.rockymountainpower.net>